

SEQUENCE LISTING

<110> AHUJA, SUNIL
 GONZALEZ, ENRIQUE
 MUMMIDI, SRINIVAS
 DOLAN, MATTHEW
 BAMSHAD, MIKE

<120> SCREENING FOR DISEASE SUSCEPTIBILITY BY GENOTYPING THE CCR5 AND CCR2
 GENES

<130> 4003.001600

<140> UNKNOWN

<141> 2002-03-29

<150> PCT/US00/28158

<151> 2000-10-12

<150> 60/159,137

<151> 1999-10-12

<160> 72

<170> PatentIn version 3.0

<210> 1

<211> 58

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide

<400> 1
 gtgggatgag cagagaacaa aaacaaaata atccagtgtg aaaagcccgt aaataaag 58

<210> 2

<211> 48

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide

<400> 2
 cagagaacaa aaacaaaata atccagtgtg aaaagcccgt aaataaag 48

<210> 3

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide

<400> 3
gataattgta tgagcacttg gtg 23

<210> 4
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide

<400> 4
ttgccttctt agagatcaca agccaaagct 30

<210> 5
<211> 49
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide

<400> 5
cccacacaga tgctcaccac ccaatattat tgttctctgt aaacggaga 49

<210> 6
<211> 57
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide

<400> 6
aacagttctt ctttttaagt tgagcttaaa ataagctaga gaatagatct ctggttt 57

<210> 7
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide

<400> 7
ggttaatgtg aagtccagga tcc 23

<210> 8
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide

<400> 8
 ggттаатgtg aagtcсagga tcc 23

<210> 9
 <211> 44
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide

<400> 9
 cattaagtgt attgaaggcg aaaagaatca gagaacagtt gatc 44

<210> 10
 <211> 59
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide

<400> 10
 gtaaataaac cttcagacca gagatctatt ctccagctta ttttaagctc aacttttaa 59

<210> 11
 <211> 29
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide

<400> 11
 gataattgta tgagcacttg gtgtttgcc 29

<210> 12
 <211> 54
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide

<400> 12
 atcttaaaga ttatatttta agataattgt atgagcactt ggtgtttgcc agat 54

<210> 13

<211> 18
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide

 <400> 13
 gttggtttaa gttggctt 18

 <210> 14
 <211> 51
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide

 <400> 14
 ctccgctcta ctgctggtg ttcattcttg gttttgtggg caacatgatg g 51

 <210> 15
 <211> 18
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide

 <400> 15
 agttgactgg tgctttca 18

 <210> 16
 <211> 21
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide

 <400> 16
 gagccaaggt cacggaagcc c 21

 <210> 17
 <211> 18
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide

 <400> 17
 ggaccagga tcttagtg 18

<210> 18
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide

<400> 18
caaaaagaag gtcttcatta cacc 24

<210> 19
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide

<400> 19
tcacaagccc acagatattt cctg 24

<210> 20
<211> 31
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide

<400> 20
gatgggaaac ctgttttagct caccgtag c 31

<210> 21
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide

<400> 21
catcccacta cacagaatct gttag 25

<210> 22
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide

<400> 22
cccgtgagcc catagttaaa actc

24

<210> 23
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide

<400> 23
tcacagggt tttcaacagt aagg

24

<210> 24
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide

<400> 24
agatgaatgt aaatgttctt ctag

24

<210> 25
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide

<400> 25
ctttttaagt tgagcttaaa ataagc

26

<210> 26
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide

<400> 26
cgcacctctg gtctgaagg ttatggtgcg

30

<210> 27
<211> 32
<212> DNA
<213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide

<400> 27
 cgcacctctg gtctgaaagt ttatttggtg cg 32

<210> 28
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide

<400> 28
 agaccagaga tctattctcc agct 24

<210> 29
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide

<400> 29
 tattgaaggc gaaaagaatc ag 22

<210> 30
 <211> 31
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide

<400> 30
 ccggtcaact taaaagaag aactggaccg g 31

<210> 31
 <211> 31
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide

<400> 31
 ccggtcaact taaaaggaag aactggaccg g 31

<210> 32

<211> 51
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide

<400> 32
 ctccgctcta ctogctggtg ttcattcttg gttttgtggg caacatgatg g 51

<210> 33
 <211> 18
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide

<400> 33
 tcaactgacc acgaaagt 18

<210> 34
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide

<400> 34
 gagccaaggt cacggaagcc c 21

<210> 35
 <211> 18
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide

<400> 35
 cctgggtcct agaatacac 18

<210> 36
 <211> 58
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide

<400> 36
 gtgggatgag cagagaacaa aaacaaaata atccagtga aaaagcccgt aaataaag 58

<210> 37
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide

<400> 37 23
ctattaacat actcgtgaac cac

<210> 38
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide

<400> 38 18
gttggtttaa gttggctt

<210> 39
<211> 54
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide

<400> 39 54
tagaatttct aatataaaat tctattaaca tactcgtgaa ccacaaacgg tcta

<210> 40
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide

<400> 40 24
caaaaagaag gtcttcatta cacc

<210> 41
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide

<400> 41
agtgttcggg tgtctataaa ggac 24

<210> 42
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide

<400> 42
tggcgacacg tagcagctta g 21

<210> 43
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide

<400> 43
ttcctggtgc cgagactagt c 21

<210> 44
<211> 29
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide

<400> 44
gcggccgctt atgcacaggg tggaacaag 29

<210> 45
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide

<400> 45
tctagaccac ttgagtccgt gtca 24

<210> 46
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide

<400> 46
cataaagaac ctgaacttga cc 22

<210> 47
<211> 54
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide

<400> 47
tagaatttct aatataaaat tctattaaca tactcgtgaa ccacaaacgg tcta 54

<210> 48
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide

<400> 48
gggaacggat gtctcagctc ttct 24

<210> 49
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide

<400> 49
accaaagatg aacaccagtg agtagag 27

<210> 50
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide

<400> 50
tgtcttctca gctctgctga c 21

<210> 51

<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide

<400> 51
gctccgatgt ataataattg atgt 24

<210> 52
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide

<400> 52
aataacttgag attttcagat g 21

<210> 53
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide

<400> 53
agattggact tgacacttga taatccat 28

<210> 54
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide

<400> 54
gttttcgttt acggagtaat attg 24

<210> 55
<211> 29
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide

<400> 55
gtttccgttt acagagaaca ataatttg 29

<210> 56
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide

<400> 56
gttcatgtgt atggggagtg ggatagg 27

<210> 57
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide

<400> 57
gcatctgtgt gggggttggg gtgggatagg 30

<210> 58
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide

<220>
<221> misc_feature
<222> (14)..(14)
<223> WHEREIN R = G OR A

<400> 58
atctggagtg aagratcctg ccac 24

<210> 59
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide

<220>
<221> misc_feature
<222> (17)..(17)
<223> WHEREIN Y = T OR C

<400> 59
ggaaacccat agaagayatt tggcaaacac

30

<210> 60
<211> 31
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide

<220>
<221> misc_feature
<222> (16)..(16)
<223> WHEREIN K = G OR T

<400> 60
tttagacaac aggttktttc cgtttacaga g

31

<210> 61
<211> 31
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide

<220>
<221> misc_feature
<222> (16)..(16)
<223> WHEREIN R = G OR A

<400> 61
gtggagaaaa aggggrcaca gggttaatgt g

31

<210> 62
<211> 34
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide

<220>
<221> misc_feature
<222> (16)..(19)
<223> WHEREIN Y = T OR C

<400> 62
agcccgtaaa taaacyttya gaccagagat ctat

34

<210> 63
 <211> 31
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide

<220>
 <221> misc_feature
 <222> (16)..(16)
 <223> WHEREIN R = G OR A

<400> 63
 aagctcaact taaaargaag aactgttctc t 31

<210> 64
 <211> 925
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide

<400> 64
 ctccagatag attatatctg gagtgaagaa tcctgccacc tatgtgtctg gcatagtgtg 60
 agtcctcata aatgcttact gggttgaagg gcaacaaaat agtgaacaga gtgaaaatcc 120
 ccactaagat cctgggtcca gaaaaagatg ggaaacctgt ttagctcccg tgagcccata 180
 gttaaaaactc tttagacaac aggttggttc cgtttacaga gaacaataat attgggtggt 240
 gagcatctgt gtggggggtg ggggtgggata ggggatacgg ggagagtgga gaaaaagggg 300
 gcacaggggtt aatgtgaagt ccaggatccc cctctacatt taaagttggt ttaagttggc 360
 ttttaattaat agcaactctt aagataatca gaatcttctt aaccttttag ccttactgtt 420
 gaaaagccct gtgatcttgt acaaatcatt ggcttcttg atagtaattt cttttactaa 480
 aatgtgggct tttgactaga tgaatgtaaa tgttcttcta gctctgatat cctttattct 540
 ttatatcttc taacggattc tgtgtagagg gatgagcaga gaacaaaaac aaaataatcc 600
 agtgagaaaa gcccataaat aaactttcag accagagatc tattctctag cttattttta 660
 gctcaactta aaaagaagaa ctgttctctg attctttttg ccttcgatac acttaatgat 720
 ttaactccac cctccttcaa aagaaacagc atttcctact tttatactgt ctatatgatt 780
 gacttgacac gctcatctgg ccagaagagc tgagacatcc gttcccctac aagaaactct 840

ccccgtaag taacctctca gccgcttggc ctgttagtta gcttctgaga tgagtaaaag 900
actttacagg aaacccatag aagac 925

<210> 65
<211> 927
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide

<400> 65
cttcagatag attatatctg gagtgaagaa tcttgccacc tatgtatctg gcatagtgtg 60
agtcctcata aatgcttact ggtttgaagg gcaacaaaat agtgaacaga gtgaaaatcc 120
ccactaagat cctgggtcca gaaaaagatg ggaaacctgt ttagctcacc cgtgagccca 180
tagttaaacc tctttagaca acaggttgtt tccgtttaca gagaacaata atattgggtg 240
gtgagcatct gtgtgggggt tggggtgga taggggatac ggggagagtg gagaaaaagg 300
gggcacaggg ttaatgtgaa gtccaggatc cccctctaca tttaaagttg gtttaagttg 360
gctttaatta atagcaactc ttaagataat cagaattttc ttaacctttt agccttactg 420
ttgaaaagcc ctgtgatctt gtacaaatca tttgcttctt ggatagtaat ttcttttact 480
aaaatgtggg cttttgacta gatgaatgta aatgttcttc tagctctgat atcctttatt 540
ctttatattt tctaacagat tctgtgtagt gggatgagca gagaacaaaa acaaaataat 600
ccagtgagaa aagcccgtaa ataaactttc agaccagaga tctattctct agcttatttt 660
aagctcaact taaaaagaag aactgttctc tgattctttt cgccttcaat aactttaatg 720
atttaactcc accctccttc aaaagaaaca gcatttccta cttttatact gtctatatga 780
ttgatttgca cagctcatct ggccagaaga gctgagacat ccgttcccct acaagaaact 840
ctccccgta agtaacctct cagctgcttg gcctgttagt tagcttctga gatgagtaaa 900
agactttaca ggaaacccat agaagac 927

<210> 66
<211> 927
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide

<220>
<221> misc_feature

<222> (374)..(374)
 <223> WHEREIN S = C OR G

<220>
 <221> misc_feature
 <222> (385)..(922)
 <223> WHEREIN R = A OR G

<220>
 <221> misc_feature
 <222> (546)..(546)
 <223> WHEREIN Y = C OR T

<400> 66
 cttcagatag attatatctg gagtgaagaa tcctgccacc tatgtatctg gcatagtgtg 60
 agtcctcata aatgcttact ggtttgaagg gcaacaaaat agtgaacaga gtgaaaatcc 120
 ccactaagat cctgggtcca gaaaaagatg ggaaacctgt ttagctcacc cgtgagccca 180
 tagttaaaac tctttagaca acaggttggt tccgtttaca gagaacaata atattgggtg 240
 gtgagcatct gtgtgggggt tgggggtggga taggggatac ggggagagtg gagaaaaagg 300
 gggcacaggg ttaatgtgaa gtccaggatc cccctctaca tttaaagttg gtttaagttg 360
 gctttaatta atascaactc ttaarataat cagaattttc ttaacctttt agccttactg 420
 ttgaaaagcc ctgtgatctt gtacaaatca ttgtcttctt ggatagtaat ttcttttact 480
 aaaatgtggg cttttgacta gatgaatgta aatgttcttc tagctctgat atcctttatt 540
 ctttayatth tctaacagat tctgtgtagt gggatgagca gagaacaaaa acaaaataat 600
 ccagtgagaa aagcccgtaa ataaactttc agaccagaga tctattctct agcttatttt 660
 aagctcaact taaaaagaag aactgttctc tgattctttt cgccttcaat aactttaatg 720
 atttaactcc accctccttc aaaagaaaca gcatttccta cttttatact gtctatatga 780
 ttgatttgca cagctcatct ggccagaaga gctgagacat ccgttcccct acaagaaact 840
 ctccccggta agtaacctct cagctgcttg gcctgttagt tagcttctga gatgagtaaa 900
 agactttaca ggaaacccat araagac 927

<210> 67
 <211> 927
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide

<400> 67
 cttcagatag attatatctg gagtgaagaa tcctgccacc tatgtatctg gcatagtgtg 60
 agtcctcata aatgcttact ggtttgaagg gcaacaaaat agtgaacaga gtgaaaatcc 120
 ccactaagat cctgggtcca gaaaaagatg ggaaacctgt ttagctcacc cgtgagccca 180
 tagttaaacc tctttagaca acagggtttt tccgtttaca gagaacaata atattgggtg 240
 gtgagcatct gtgtgggggt tggggtgga taggggatac ggggagagtg gagaaaaagg 300
 gggcacaggg ttaatgtgaa gtccaggatc cccctctaca tttaaagttg gtttaagttg 360
 gctttaatta atagcaactc ttaagataat cagaattttc ttaacctttt agccttactg 420
 ttgaaaagcc ctgtgatctt gtacaaatca tttgcttctt ggatagtaat ttcttttact 480
 aaaatgtggg cttttgacta gatgaatgta aatgttcttc tagctctgat atcctttatt 540
 ctttatattt tctaacagat tctgtgtagt gggatgagca gagaacaaaa acaaaataat 600
 ccagtgagaa aagcccgtaa ataaactttc agaccagaga tctattctct agcttatttt 660
 aagctcaact taaaaagaag aactgttctc tgattctttt cgccttcaat aactttaatg 720
 atttaactcc accctccttc aaaagaaaca gcatttccta cttttatact gtctatatga 780
 ttgatttgca cagctcatct ggccagaaga gctgagacat ccgttcccct acaagaaact 840
 ctccccggtg agtaacctct cagctgcttg gcctgttagt tagcttctga gatgagtaaa 900
 agactttaca ggaaacccat agaagac 927

<210> 68
 <211> 927
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide

<220>
 <221> misc_feature
 <222> (239)..(756)
 <223> WHEREIN Y = C OR T

<400> 68
 cttcagatag attatatctg gagtgaagaa tcctgccacc tatgtatctg gcatagtgtg 60
 agtcctcata aatgcttact ggtttgaagg gcaacaaaat agtgaacaga gtgaaaatcc 120
 ccactaagat cctgggtcca gaaaaagatg ggaaacctgt ttagctcacc cgtgagccca 180
 tagttaaacc tctttagaca acagggtttt tccgtttaca gagaacaata atattgggyg 240

gtgagcatct gtgtgggggt tggggtggga taggggatac ggggagagtg gagaaaaagg 300
 gggcacaggg ttaatgtgaa gtccaggatc cccctctaca tttaaagttg gtttaagttg 360
 gctttaatta atagcaactc ttaagataat cagaattttc ttaacctttt agccttactg 420
 ttgaaaagcc ctgtgatctt gtacaaatca tttgcttctt ggatagtaat ttcttttact 480
 aaaatgtggg cttttgacta gatgaatgta aatgttcttc tagctctgat atcctttatt 540
 ctttatattt tctaacagat tctgtgtagt gggatgagca gagaacaaaa acaaaataat 600
 ccagtgagaa aagcccgtaa ataaactttc agaccagaga tctattctct agcttatattt 660
 aagctcaact taaaaggaag aactgttctc tgattctttt cgccttcaat acacttaatg 720
 atttaactcc accctccttc aaaagaaaca gcattyccta cttttatact gtctatatga 780
 ttgatttgca cagctcatct ggccagaaga gctgagacat ccgttcccct acaagaaact 840
 ctccccggtg agtaacctct cagctgcttg gcctgttagt tagcttctga gatgagtaaa 900
 agactttaca ggaaacccat agaagac 927

<210> 69
 <211> 927
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide

 <220>
 <221> misc_feature
 <222> (45)..(524)
 <223> WHEREIN Y = C OR T

<400> 69
 cttcagatag attatatctg gagtgaagaa tcctgccacc tatgyatctg gcatagtgtg 60
 agtcctcata aatgcttact ggtttgaagg gcaacaaaat agtgaacaga gtgaaaatcc 120
 ccactaagat cctgggtcca gaaaaagatg ggaaacctgt ttagctcacc cgtgagccca 180
 tagttaaaac tcttttagaca acaggttttt tccgtttaca gagaacaata atattgggtg 240
 gtgagcatct gtgtgggggt tggggtggga taggggatac ggggagagtg gagaaaaagg 300
 gggcacaggg ttaatgtgaa gtccaggatc cccctctaca tttaaagttg gtttaagttg 360
 gctttaatta atagcaactc ytaagataat cagaattttc ttaacctttt agccttactg 420
 ttgaaaagcc ctgtgatctt gtacaaatca tttgcttctt ggatagtaat ttcttttact 480

```

aaaatgtggg ctttgacta gatgaatgta aatgttcttc tagytctgat atcctttatt    540
ctttatattt tctaacagat tctgtgtagt gggatgagca gagaacaaaa acaaaataat    600
ccagtgagaa aagcccgtaa ataaactttt agaccagaga tctattctct agcttatttt    660
aagctcaact taaaaagaag aactgttctc tgattctttt cgccttcaat acacttaatg    720
atttaactcc accctccttc aaaagaaaca gcatttccta cttttatact gtctatatga    780
ttgatttgca cagctcatct ggccagaaga gctgagacat ccgttcccct acaagaaact    840
ctccccggtg agtaacctct cagctgcttg gcctgttagt tagcttctga gatgagtaaa    900
agactttaca ggaaacccat agaagac                                         927

```

```

<210> 70
<211> 927
<212> DNA
<213> Artificial Sequence

```

```

<220>
<223> Synthetic oligonucleotide

```

```

<220>
<221> misc_feature
<222> (177)..(494)
<223> WHEREIN Y = C OR T

```

```

<400> 70
cttcagatag attatatctg gagtgaagaa tcctgccacc tatgtatctg gcatagtgtg    60
agtcctcata aatgcttact ggtttgaagg gcaacaaaat agtgaacaga gtgaaaatcc    120
ccactaagat cctgggtcca gaaaaagatg ggaaacctgt ttagctcacc cgtgagycca    180
tagttaaacc tctttagaca acaggttgtt tccgtttaca gagaacaata atattgggtg    240
gtgagcatct gtgtgggggt tggggtgagg taggggatac ggggagagtg gagaaaaagg    300
ggacacaggg ttaatgtgaa gtccaggatc cccctctaca tttaaagtgt gtttaagttg    360
gctttaatta atagcaactc ttaagataat cagaattttc ttaaccttty agccttactg    420
ttgaaaagcc ctgygatctt gtacaaatca tttgcttctt ggatagtaat ttcttttact    480
aaaatgtggg ctttgacta gatgaatgta aatgttcttc tagctctgat atcctttatt    540
ctttatattt tctaacagat tctgtgtagt gggatgagca gagaacaaaa acaaaataat    600
ccagtgagaa aagcccgtaa ataaaccttc agaccagaga tctattctct agcttatttt    660
aagctcaact taaaaagaag aactgttctc tgattctttt cgccttcaat acacttaatg    720
atttaactcc accctccttc aaaagaaaca gcatttccta cttttatact gtctatatga    780

```

ttgatttgca cagctcatct ggccagaaga gctgagacat ccgttcccct acaagaaact 840
 ctccccggta agtaacctct cagctgcttg gctgttagt tagcttctga gatgagtaaa 900
 agactttaca ggaaacccat agaagac 927

<210> 71
 <211> 927
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide

<220>
 <221> misc_feature
 <222> (94)..(895)
 <223> WHEREIN R = A OR G

<220>
 <221> misc_feature
 <222> (209)..(880)
 <223> WHEREIN Y = C OR T

<400> 71
 cttcagatag attatatctg gagtgaagaa tcctgccacc tatgtatctg gcatagtgtg 60
 agtcctcata aatgcttact ggtttgaagg gcarcaaaat agtgaacaga gtgaaaatcc 120
 ccactaagat cctgggtcca gaaaaagatg ggaaacctgt ttagctcacc cgtgagccca 180
 tagttaaacc tctttagacr acaggttgyt tccgtttaca gagaacaata atattgggtg 240
 gtgagcatct gtgtgggggt tgggggtggga taggggatac ggggagagtg grgaaaaagg 300
 ggacacaggg ttaatgtgaa gtccaggatc cccctctaca tttaaagttg gtttaagttg 360
 rctttaatta atagcaactc ttaagataat cagaattttc ttaacctttt agccttactg 420
 ttgaaaagcc ctgtgatctt gtacaaatca tttgcttctt ggatagtaat ttcttttact 480
 aaaatgtggg cttttgacta gatgaatgta aatgtttctt tagctctgat atcctttatt 540
 ctttatatatt tctaacagat tctgtgtagt gggatgagca gagaacaaaa acaaaataat 600
 ccagtgagaa aagcccgtaa ataaaccttc agaccagaga tctattctct agcttatatt 660
 aagctcaact taaaaagaag aactgytctc tgattctttt cgccttcaat acacttaatg 720
 atttaactcc accctccttc aaaagaaaca gcatttctta cttttatact gyctatatga 780
 ttgatttgca cagctcatct ggccagaaga gctgagacat ccgttcccct acaagaaact 840

ctccccggtg agtaacctct cagctgcttg gcctgttagy tagcttctgr gatgrgtaaa 900
 agactttaca ggaaacccat agaagat 927

<210> 72
 <211> 927
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide

<220>
 <221> misc_feature
 <222> (718)..(925)
 <223> WHEREIN R = A OR G

<400> 72
 cttcagatag attatatctg gagtgaagga tcctgccacc tatgtatctg gcatagtgtg 60
 agtcctcata aatgcttact ggtttgaagg gcaacaaaat agtgaacaga gtgaaaatcc 120
 ccactaagat cctgggtcca gaaaaagatg ggaaacctgt ttagctcacc cgtgagccca 180
 tagttaaaac tctttagaca acaggttggt tccgtttaca gagaacaata atattgggtg 240
 gtgagcatct gtgtgggggt tgggggtggga taggggatac ggggagagtg gagaaaaagg 300
 ggacacaggg ttaatgtgaa gtccaggatc cccctctaca tttaaagttg gtttaagttg 360
 gctttaatta atagcaactc ttaagataat cagaattttc ttaacctttt agccttactg 420
 ttgaaaagcc ctgtgatctt gtacaaatca tttgcttctt ggatagtaat ttcttttact 480
 aaaatgtggg cttttgacta gatgaatgta aatgttcttc tagctctgat atcctttatt 540
 ctttatattt tctaacagat tctgtgtagt gggatgagca gagaacaaaa acaaaataat 600
 ccagtgagaa aagcccgtaa ataaaccttc agaccagaga tctattctct agcttatttt 660
 aagctcaact taaaaagaag aactgttctc tgattctttt cgccttcaat acacttartg 720
 atttaactcc accctccttc aaaagaaaca gcatttccta cttttatact gtctatatga 780
 ttgatttgca cagctcatct ggccagaaga gctgagacat cggttcccct acaagaaact 840
 ctccccggtg agtaacctct cagctgcttg gcctgttagt tagcttctga ratgagtaaa 900
 agactttaca ggaaacccat agaarac 927